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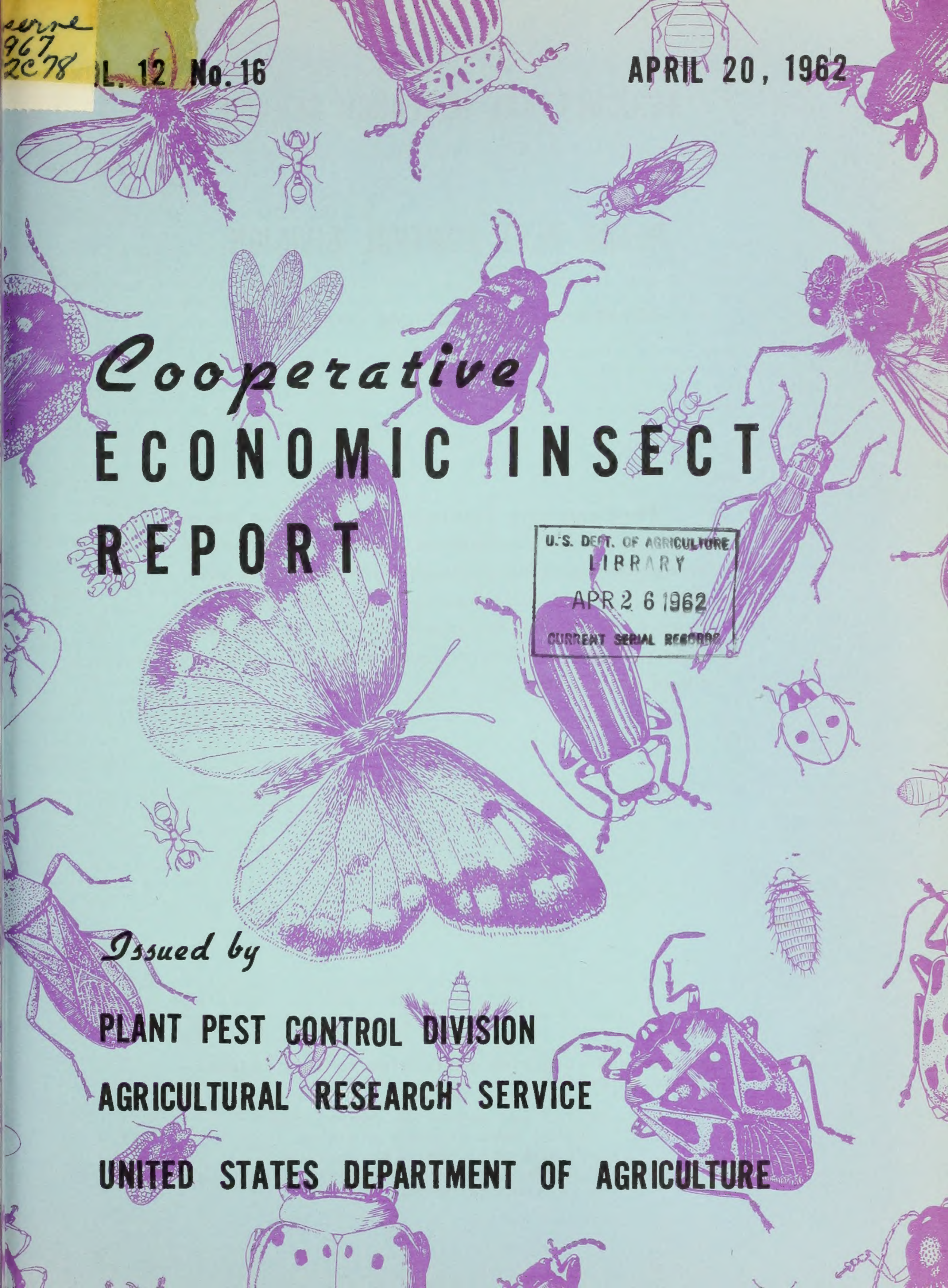

L. 12 No. 16

APRIL 20, 1962

Cooperative ECONOMIC INSECT REPORT

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PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Survey and Detection Operations
Plant Pest Control Division
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Volume 12 April 20, 1962 Number 16

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

GREENBUG caused heavy damage to several fields in few panhandle counties of Texas; however, occurrences were local, with counts of over 1,000 per foot. Generally, populations less than 100 per foot and general outbreak not expected in area this year. Populations variable in north central Texas counties and causing considerable damage to seedling grain sorghum in Brazos County. Greenbug increased considerably in southwest and west central Oklahoma; remains noneconomic in northwest and north central areas. (p. 377). Rainfall generally reduced BROWN WHEAT MITE populations in Oklahoma and populations in panhandle area of Texas not expected to cause further damage. ALFALFA WEEVIL controls applied to several thousand acres in Klamath County, Oregon, where severe infestations occurred during 1961; applications also made in several areas of Utah. Adult alfalfa weevil damage found in Crowley County, Colorado. Adult activity curtailed in Maryland by cool, wet weather. (p. 378). ARMY CUTWORM continues a problem in forage crops in central third of Texas; damage reported in Weld and Adams Counties, Colorado; and control necessary on alfalfa at Marysvale, Utah. (p. 379). PEA APHID increasing slowly in Maryland and continues to build up in Oklahoma, especially in south central area. Pea aphid variable on alfalfa in Kaufman County, Texas, and heavy enough in 250-acre field in Comanche County to warrant control. (pp. 379, 380). LYGUS BUG adults and nymphs common in alfalfa, statewide, in Arizona; nymphs becoming more abundant on this crop in Dona Ana and Sierra Counties, New Mexico; and active in Utah, Juab and Sanpete Counties, Utah. (p. 380). APPLE APHID and ROSY APPLE APHID becoming pests of apple trees in Northeast; rosy apple aphid producing young in Kane County, Utah. Large number of PEAR PSYLLA eggs laid at Storrs, Connecticut; expected to become a problem this year. (p. 381). GREEN PEACH APHID heavy on sugar beets in Stanislaus County, California; troublesome on several truck crops in Arizona; and increasing in Moapa Valley, Nevada. (p. 382).

SOME FIRST SEASON REPORTS

Pupation of EUROPEAN CORN BORER underway in Delaware; CORN EARWORM larvae in Oklahoma; LESSER CLOVER LEAF WEEVIL adults in Delaware and Illinois; SWEETCLOVER WEEVIL in Illinois and Utah; VETCH BRUCHID adults in Texas; ALFALFA CATERPILLAR adults and larvae in Arkansas; RED-BANDED LEAF ROLLER moths in New Jersey; POTATO PSYLLID adults in Clark County, Nevada; MEADOW SPITTLEBUG in Oregon and Maryland; WHITE-PINE APHID eggs in Maryland; ELM LEAF BEETLE adults in Rhode Island; FACE FLY in Indiana and Illinois; and MOSQUITO adults reported in Delaware and Utah.

DETECTION

A SPITTLEBUG (Lepyronia coleoptrata) confirmed for first time in North America (New York) (p.395). New State records were BALSAM TWIG APHID in North Carolina (p. 385), and an ERIOPHYID MITE (Aculus dubius) from Rhode Island (p. 378). New county records were PITCH-PINE TIP MOTH from Cleveland, Lincoln, Ashley, Union and Hempstead Counties, Arkansas (p. 384), and BROWN-BANDED COCKROACH from Piute County, Utah (p. 388).

CORRECTION and ADDITIONAL NOTES

See page 391

(continued on page 376)

SPECIAL REPORTS

Change of Name of Migratory Grasshopper. Name for Melanoplus bilituratus (Walker) now M. sanguinipes (F.). (p. 391).

Estimates of Damage by the European Corn Borer to Grain Corn in the United States in 1961. Estimated losses in 1961 were 65,044,000 bushels and $68,998,000. (p. 393).

The Spittlebug, Lepyronia coleoptrata (Linnaeus), in North America (Homoptera: Cercopidae). Presence of this species in Nearctic Region confirmed. (p. 395).

Periodical Cicada Outlook for 1962. Areas of heaviest infestation expected to be along the Atlantic seaboard from North Carolina to Connecticut. (p. 397).

Interceptions of Special Interest at U. S. Ports of Entry. (p. 399).

Insects Not Known to Occur in the United States - Cabbage Thrips (Thrips angusticeps Uzel). (p. 399).

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Reports in this issue are for week ending April 13, unless otherwise indicated.

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WEATHER BUREAU 30-DAY OUTLOOK
MID-APRIL TO MID-MAY 1962

The Weather Bureau's 30-day outlook for period mid-April to mid-May calls for temperatures to average below seasonal normals over the eastern half of the Nation, with greatest departures in the Southeast. Above normal temperatures are expected to prevail in the West except for near to below normal in the Pacific Northwest. Precipitation is expected to exceed normal in the Middle and North Atlantic States, and also the Pacific Northwest. Subnormal amounts are indicated for the Southwest, the southern and central Plains, and the Lower Mississippi Valley. In the remaining unspecified area about normal amounts are in prospect.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D.C. Price $4.80 a year, $2.40 a half year.

WEATHER OF THE WEEK ENDING APRIL 16

The week was mostly warm in the Far West, cold in the Great Plains and Central and Appalachian States, and about normal along the Atlantic coast. Temperatures over 90° were recorded in the interior valleys of California, the Southwest Deserts and eastward across southern New Mexico and western Texas. Yuma broke the 90° mark each day and had maxima exceeding 100° on the 12th through the 15th, with 106° on Friday the 13th. High temperatures into the low 90's pushed into southern Georgia on Wednesday, but receded as cooler air moved south after the midweek. In Minnesota, temperatures averaged as much as 16° below normal, and from central Kentucky westward over southeast Missouri more than 9° below normal. While daily record lows were set at many stations in these areas toward the end of the period, daily record highs were being set in the northern Rocky Mountain States. Boise, Idaho, had 86° on the 14th. On the 15th, 85° at Billings, Montana, was warmer than Miami's 79°. On the same day, the thermometer at Bemidji, Minnesota, dipped to 5°. Freezing temperatures reached into most of the Nation, except for coastal and southern sections. The 32° mark was not recorded further east than the Atlantic side of the Appalachians, nor further south than the northern sections of the Gulf States. Texas had no freezing, except locally in some northern spots. In the Far West, lower elevations of the Southwest and Pacific States were the only areas free of minimum temperatures of 32° and lower.

(Weather continued on page 392)

CEREAL AND FORAGE INSECTS

GREENBUG (Toxoptera graminum) - TEXAS - Found in 19 panhandle counties during period March 14 to April 4. Several fields heavily damaged in a few counties; these were local occurrences, with populations of over 1,000 per foot. Generally, populations less than 100 per foot; many less than 20 per foot. General outbreak not expected this year. (Daniels). Populations in north central counties variable, with only local instances of economic damage. Generally, populations ranged 50-100 per foot of row. High percentage of parasitism noted. (Turney, Wagner, Newton). Greenbug causing considerable damage to seedling grain sorghum in Brazos County. (Randolph). OKLAHOMA - Populations increased considerably in southwest and west central areas; counts per linear foot ranged 15-150 in southwest, 60-100 in Cordell area, Washita County (west central). Most wheat in these areas in boot stage and no extensive "greenbug spots" are noticeable. Controls applied to only occasional fields in Cordell-Hobart area (west central) and Walters area (southwest). Populations remain noneconomic in northwest and north central areas; counts in south central area ranged 10-200 per foot, with high count in spots in one field. (Okla. Coop. Sur.). ARKANSAS - None present in most small grain in southern area. Low numbers, 40-50 per 100 sweeps, found in field of oats on Kelso Experiment Station in Desha County. (Ark. Ins. Sur.). KANSAS - None found in field of wheat examined in Doniphan County. (Eshbaugh).

CORN LEAF APHID (Rhopalosiphum maidis) - NEW MEXICO - Building up in barley in Dona Ana and Sierra Counties. (N. M. Coop. Rpt.). TEXAS - Light populations, 10 per foot, noted in small grain in Limestone County. (Newton).

APPLE GRAIN APHID (Rhopalosiphum fitchii)- OKLAHOMA - Populations remain low in west central and southwest areas; 0-15 per linear foot. Ranged 50-250 per linear foot on wheat in Johnston County; localized populations reported in Caddo County. (Okla. Coop. Sur.). TEXAS - Averaged about 50 per linear foot in small grain in Limestone County. (Newton).

YELLOW SUGARCANE APHID (Sipha flava) - OKLAHOMA - Light populations of 8 per linear foot observed on wheat in Johnston County. (Okla. Coop. Sur.).

CHINCH BUG (Blissus leucopterus) - TEXAS - Adults ranged 200-300 per 100 plants in 6 fields of young corn and sorghum in Live Oak County. (Texas Coop. Rpt., Edgar). NEW YORK - Collected from turf sample in Nassau County during last week of March. Also, 40 adults counted in a 100-square-foot area along edge of woods adjacent to lawn in same county on April 5. (N. Y. Wkly. Rpt.).

LEAFHOPPERS - UTAH - Dikraneura carneola common on winter wheat north of Nephi, Juab County. (Knowlton). WYOMING - Cuerna sp. numerous in alfalfa and weed areas bordering alfalfa in Johnson, Sheridan and Converse Counties. (Fullerton).

EUROPEAN CORN BORER (Ostrinia nubilalis) - MINNESOTA - Overwintering mortality survey begun in southeast; mortality averaged 13 percent in area. Apparently overwintering mortality will be low in State this year. (Minn. Ins. Rpt.). WISCONSIN - Further dissection of corn showed overwintering mortality of 0-15 percent in northeast and east central areas. Predation by birds would approach 90 percent in most fields. (Wis. Ins. Sur.). MISSOURI - Averaged 47 borers per 100 stalks in 5 fields in northwest area; averaged 59 borers per 100 stalks in this area in fall of 1961, which is approximately a 20-percent reduction. Counts averaged 1,471 borers per acre in west central area. (Allemann). DELAWARE - Pupation increased very slightly over report of week ending April 6. (Burbutis).

CORN EARWORM (Heliothis zea) - ARKANSAS - This is first year of 4-year period of early egg deposition survey that eggs were not found in numbers in southern part of State the second week of April. Apparently egg deposition is not underway at this time and moth emergence has been delayed by cool weather. (Boyer, Whitcomb). OKLAHOMA - Averaged one per 10 sweeps on alfalfa in Choctaw County. This is first report of season and is about one month earlier than in previous 3 years. (Okla. Coop. Sur.).

DESERT CORN FLEA BEETLE (Chaetocnema ectypa) - ARIZONA - Increasing in young corn and sorghum in central and southwest areas; 3-4 per plant in some fields. (Ariz. Coop. Sur.).

A BILLBUG (Sphenophorus callosa) - GEORGIA - Light on corn in Colquitt County. (Johnson).

A GROUND BEETLE (Bembidion sp.) - TEXAS - Suspected of damaging rice in Wharton County by "stinging" young plants one-half inch above seed where shoot is white and tender. (Smith).

SEED-CORN MAGGOT (Hylemya cilicrura) - DELAWARE - Adults quite numerous in most areas of State. (Kelsey).

BROWN WHEAT MITE (Petrobia latens) - COLORADO - Counts per linear foot on wheat were 0-5 in Prowers and Bent Counties, 5-10 in Otero County; none found in Crowley, Pueblo and western Otero Counties. (Schweissing). OKLAHOMA - Rainfall during week April 8-14 generally reduced populations; only light, scattered populations noted in southwest and west central areas. Light populations reported from Cimarron County. (Okla. Coop. Sur.). TEXAS - After recent rains, infestations in panhandle area not expected to cause further damage. (Daniels). Light populations noted in Abilene area, Taylor County. (Garner).

AN ERIOPHYID MITE (Aculus dubius) - RHODE ISLAND - Heavy infestation occurred on timothy(Phleum sp.) in South Kingstown, Washington County, on May 9, 1961. Collected by T. W. Kerr. Det. by H. H. Keifer. This is a new State record. (Kerr).

ALFALFA WEEVIL (Hypera postica) - OREGON - Controls completed over several thousand acres in Klamath County, where severe infestations occurred during 1961 season. (Capizzi). UTAH - Control application completed on 50-75 percent of alfalfa acreage in several areas of Sanpete County. Adults active in various areas in northern and central parts of State. Stubble spray applied over all acreage around Marysvale Junction, Utah County; will soon be applied to balance of alfalfa at Kingston, Piute County. Moderate in Glendale-Orderville area, and less common at Kanab, both in Kane County. (Knowlton). WYOMING - Adults less than one per square yard in alfalfa in Johnson, Sheridan and Converse Counties. Alfalfa plants had less than one inch of growth in all areas surveyed. (Fullerton). COLORADO - Adult damage found in Crowley County. (Schweissing). VIRGINIA - First instars heavy in abandoned field near Blacksburg, Montgomery County (Guerra); first, second and third instars present in Lee County (Rowell, Trundle). First instars locally light in one of 3 fields checked in Bedford County and one field in Campbell County. Adults also present in infested fields. (Tarpley). MARYLAND - Light numbers of small larvae noted on alfalfa in Dorchester County. Adult activity curtailed by cool, wet weather. (U. Md., Ent. Dept.).

AN ALFALFA WEEVIL (Hypera brunneipennis) - CALIFORNIA - Larval infestations medium on burr clover in Fallbrook and on yellow clover in Dulzura, San Diego County. (Cal. Coop. Rpt.).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - DELAWARE - Adults present in alfalfa in New Castle County. (Bray). ILLINOIS - Adult counts per square foot 0-1 (averaged 0.08) in clover fields in east-southeast district. (Ill. Ins. Rpt.).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - ILLINOIS - Averaged 4 adults per square foot in field of sweetclover in Lawrence County. (Ill. Ins. Rpt.). UTAH - Notching leaves at Kanab, Kane County. (Knowlton).

CLOVER LEAF WEEVIL (Hypera punctata) - TEXAS - Caused light damage to alfalfa in Wilbarger County. (Lehmberg). ILLINOIS - Average populations per square foot during the period April 1-15, by year, are tabulated below.(Ill. Ins. Rpt.).

	Sections of Illinois			
Year	West	Central	West-southwest	East-southeast
1954	31.7	42.0	28.0	21.5
1955	7.0	13.0	5.8	13.0
1956	2.9	8.0	1.3	2.3
1957	18.6	17.1	11.0	20.6
1958	2.0	1.6	---	2.1
1959	---	2.0	4.9	2.7
1960	---	10.0	---	15.7
1961	---	13.8	---	13.2
1962	---	26.5	16.0	4.5

VETCH BRUCHID (Bruchus brachialis) - TEXAS - Light adult numbers appearing in experimental plots in Brazos County. (Randolph).

WESTERN YELLOW-STRIPED ARMYWORM (Prodenia praefica) - OREGON - Adult flights appearing in light trap collections at widely scattered points are more abundant than usual. (Goeden).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - OKLAHOMA - Light (0.1-2.0 per sweep) on alfalfa throughout south central and southeast areas. (Okla. Coop. Sur.).

ARMY CUTWORM (Chorizagrotis auxiliaris) - TEXAS - Continues a problem in forage crops in central third of State; causing moderate damage to alfalfa at Vernon, Wilbarger County. (Lehmberg). COLORADO - Larvae per foot in wheat and alfalfa averaged 2 in Crowley County, ranged 0-2 in Prowers County. Damage reported in Weld and Adams Counties. (Schweissing, Lesser, Boyce, Schafer). WYOMING - Few larvae found in winter wheat and on rangeland bordering cultivated fields in Sheridan and Campbell Counties. (Fullerton). UTAH - Necessitated controls on 70 acres of alfalfa at Marysvale, Piute County. (Knowlton).

GREEN CLOVERWORM (Plathypena scabra) - OKLAHOMA - Light, one per sweep, on alfalfa in McCurtain County; 1-5 per square foot noted on vetch in Love County. This is first reported activity of season. (Okla. Coop. Sur.). ARKANSAS - Occasional specimen taken on alfalfa and crimson clover in southwest and southeast areas. (Ark. Ins. Sur.).

ALFALFA CATERPILLAR (Colias eurytheme) - ARKANSAS - Adults very active in central and southern sections; eggs easily found and few larvae collected. (Ark. Ins. Sur.).

PEA APHID (Macrosiphum pisi) - MARYLAND - Numbers increasing slowly, but light to date on alfalfa in Dorchester County. (U. Md., Ent. Dept.). VIRGINIA - Light in alfalfa checked in Bedford and Campbell Counties; counts per 50 sweeps were 60, 300 and 800, respectively, in 3 fields in Bedford County, and 900 in one Campbell County field. None infected by fungus; predators common in most fields. (Tarpley). ILLINOIS - Ranged 0-2 (averaged 0.08) per square foot in east-southeast district, with 50 per 100 sweeps in one field of 3-inch alfalfa. (Ill. Ins. Rpt.). ARKANSAS - Counts low in most southern area legumes; up to several hundred per 100 sweeps taken in few fields of alfalfa. Numbers being affected by hymenopterous parasites in most fields and reduced by disease in some fields. (Ark. Ins. Sur.). OKLAHOMA - Continues to build up, especially in south central area, with 50-800 per sweep. Lower counts of 20-100 per sweep in southwest and 30-150 per sweep in southeast observed on alfalfa. (Okla. Coop. Sur.).

TEXAS - Variable on alfalfa and vetch in Kaufman County; ranged from practically none to 1,000 per 5 sweeps. (Turney). Heavy enough in 250-acre field of alfalfa in Comanche County to warrant control. (Dickson). Populations on vetch and alfalfa in Brazos and Burleson Counties unchanged for 10 days; 50-200 per 5 sweeps. (Newton). NEW MEXICO - Remains generally light in alfalfa in southern counties. (N. M. Coop. Rpt.). UTAH - Present on alfalfa at Kanab, Kane County. (Knowlton).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - NEW MEXICO - Remains generally light in alfalfa in southern counties. (N. M Coop. Rpt.). ARKANSAS - None found in southern area of State. (Ark. Ins. Sur.).

COWPEA APHID (*Aphis* sp., probably *craccivora*) - NEVADA - Counts per sweep in alfalfa ranged 3-8 in Las Vegas and 0-4 in Moapa Valley, Clark County. (Bechtel).

ALFALFA PLANT BUG (*Adelphocoris lineolatus*) - WYOMING - Few adults present in crowns of alfalfa in Johnson and Sheridan Counties. (Fullerton).

TARNISHED PLANT BUG (*Lygus lineolaris*) - OKLAHOMA - Light on alfalfa in south central and southeast areas; 1-15 per 10 sweeps. (Okla. Coop. Sur.). VIRGINIA - Few collected in 3 fields of alfalfa in Bedford County and one field in Campbell County. (Tarpley).

LYGUS BUGS (*Lygus* spp.) - ARIZONA - Adults and nymphs common in alfalfa statewide. (Ariz. Coop. Sur.). NEW MEXICO - Nymphs becoming more abundant in alfalfa in Dona Ana and Sierra Counties; averaged 1-3 per sweep. Occasional adults present. (N. M. Coop. Rpt.). UTAH - Active on mustards and alfalfa in Utah, Juab and Sanpete Counties; *L. elisus* most numerous species. (Knowlton).

BROWN STINK BUG (*Euschistus servus*) - ARKANSAS - Occasional specimen collected on crimson clover in southern area. (Ark. Ins. Sur.).

THREE-CORNERED ALFALFA HOPPER (*Spissistilus festinus*) - NEW MEXICO - Adults ranged 2-5 per 25 sweeps in Dona Ana and Sierra Counties. (N. M. Coop. Rpt.).

CLOVER LEAFHOPPER (*Aceratagallia sanguinolenta*) - UTAH - Numerous in alfalfa in Ephraim-Manti area, Sanpete County, and in Glendale-Orderville area, Kane County. Less numerous at Kanab. (Knowlton).

THRIPS - NEW MEXICO - Becoming more numerous in alfalfa throughout most of State. (N. M. Coop. Rpt.).

GRASSHOPPERS - OKLAHOMA - First instars of unspecified species noted in margins of alfalfa in Cordell area, Washita County, week of April 6. (Okla. Coop.Sur.)

GREEN PEACH APHID (*Myzus persicae*) - ARIZONA - Very heavy on untreated safflower in central area of State. (Ariz. Coop. Sur.).

BEET ARMYWORM (*Spodoptera exigua*) - ARIZONA - Infestations range light to medium in some Yuma County flax. (Ariz. Coop. Sur.).

A SOD WEBWORM (*Crambus* sp.) - COLORADO - Damaged lawn in Arapahoe County. (Lane, Hantsbarger, Lawson).

A MAY BEETLE (*Phyllophaga crassissima*) - KANSAS - Adult collected adjacent to bluegrass lawn in Manhattan, Riley County, April 9. Previous record of first appearance in State is April 22. (Burkhardt).

FRUIT INSECTS

APPLE APHID (*Aphis pomi*) - CONNECTICUT - Hatching in Litchfield area, Litchfield County; large numbers expected in New Haven, New Haven County, and Storrs, Tolland County. (Savos). PENNSYLVANIA - Hatched on apple April 5 in southwest area; also in Snyder County on same date, but was not abundant on apple. Very plentiful on apple trees in south central area. (Menusan, Gesell, Pepper). UTAH - Beginning to produce young at Kanab and Glendale, Kane County. (Knowlton).

ROSY APPLE APHID (*Anuraphis rosea*) - MASSACHUSETTS - Hatching expected soon; controls recommended. (Crop Pest Cont. Mess.). PENNSYLVANIA - Very abundant on apple; up to 20 per bud in south central area. (Pepper). UTAH - Mature, and producing young at Kanab and Glendale, Kane County. (Knowlton).

APPLE GRAIN APHID (*Rhopalosiphum fitchii*) - MASSACHUSETTS - Most abundant aphid on apple buds. (Crop Pest Cont. Mess.). CONNECTICUT - Hatching in Litchfield area, Litchfield County; large numbers expected in New Haven, New Haven County, and Storrs, Tolland County. (Savos). PENNSYLVANIA - Hatching occurred in southwest area on apple on April 5. Very plentiful on apple in south central area during week. (Menusan, Pepper). KANSAS - About 50 percent of untreated apple tree buds in orchard in Doniphan County infested; ranged 0-25 per bud, with average of 5 per infested bud. (Eshbaugh, Peters).

APHIDS - CONNECTICUT - Controls recommended for dooryard apple trees. Aphids generally easy to find on developing buds. (Savos). NEW YORK - Hatching in orchards in Dutchess and Orange Counties. (N. Y. Wkly. Rpt., Apr. 9). INDIANA - Especially numerous in apple orchards in Mitchell area. Predator eggs also easily found. (Marshall, Apr. 10).

GREEN PEACH APHID (*Myzus persicae*) - UTAH - Moderately numerous on peach trees at Kanab, Kane County. (Knowlton).

TARNISHED PLANT BUG (*Lygus lineolaris*) - INDIANA - Adults active in Vincennes area and will be injuring peaches during bloom period. (Hamilton, Apr. 10).

PEAR PSYLLA (*Psylla pyricola*) - CONNECTICUT - Large number of eggs laid at Storrs, Tolland County; expected to become a problem this year. New Haven-Cheshire area, New Haven County, only other part of State to report this pest to date. (Savos). NEW YORK - Adults and eggs observed in home orchard examined April 5 in Clinton County. (N. Y. Wkly. Rpt.).

RED-BANDED LEAF ROLLER (*Argyrotaenia velutinana*) - NEW JERSEY - Few moths observed, but egg laying not yet begun. (Ins.-Dis.-Weed Newsltr., Apr. 10). INDIANA - No egg masses found in apple orchards in Vincennes area as of April 10. (Hamilton). KANSAS - Adults apparently not yet emerged in Doniphan County; no eggs found on apple trees examined. (Eshbaugh, Peters).

TENT CATERPILLARS (*Malacosoma* spp.) - CONNECTICUT - Hatched April 10 at Storrs, Tolland County. (Savos).

A METALLIC WOOD BORER (*Dicerca* sp.) - NEVADA - Medium adult numbers found in apple trees in Ruby Valley, Elko County. (Del Curto).

A BARK BEETLE (*Scolytus* sp.) - COLORADO - A problem in a cherry orchard in Garfield County. (Cogburn, Hantsbarger).

EUROPEAN RED MITE (*Panonychus ulmi*) - NEW YORK - Egg numbers low generally in Dutchess County orchards. (N. Y. Wkly Rpt., Apr. 9).

ORCHARD MITES - NEW YORK - Very few eggs observed on twigs in apple orchards where controls were used last season in Suffolk County. (N. Y. Wkly. Rpt., Apr. 9). CONNECTICUT - Controls recommended for dooryard apple trees. (Savos).

A PHYCITID (Davara caricae) - FLORIDA - Collected on papaya at Hialeah, Dade County. (Stegmaier, Mar. 30).

PAPAYA FRUIT FLY (Toxotrypana curvicauda) - FLORIDA - Collected on papaya at Hialeah, Dade County. (Stegmaier, Mar. 30).

PECAN LEAF CASEBEARER (Acrobasis juglandis) - GEORGIA - Light to moderate on pecan trees in Colquitt, Lowndes and Berrien Counties; however, little defoliation occurred and trees leafing out rapidly. (Johnson).

BROWN SOFT SCALE (Coccus hesperidum) - TEXAS - Check of citrus trees in Cameron County revealed no infestations on trees heavily infested before January freeze. (Texas Coop. Rpt., Day).

CHAFF SCALE (Parlatoria pergandii) - FLORIDA - Moderate to severe on Citrus sinensis at Avalon, Orange County. (Griffith, Mar. 26).

SPIREA APHID (Aphis spiraecola) - FLORIDA - Severe on Citrus sinensis at Avalon, Orange County, March 26; moderate on loquat at Stuart, Martin County, April 4. (Griffith, Campbell).

TRUCK CROP INSECTS

GREEN PEACH APHID (Myzus persicae) - CALIFORNIA - Heavy on sugar beet plantings in Newman, Stanislaus County. (Cal. Coop. Rpt.). NEVADA - Increasing again on sugar beets and medium to heavy on radishes and tomatoes in Moapa Valley, Clark County. (Nichols). ARIZONA - Infestations very heavy on untreated potatoes in central area; infestations a problem in sugar beets, carrots and other crops and home plantings. (Ariz. Coop. Sur.). OKLAHOMA - Populations up from 2 weeks ago in Bixby area, Tulsa County. (Okla. Coop. Sur.). DELAWARE - Apterous, viviparous females and nymphs present on spinach; averaged 3 per plant in large commercial field in central Kent County. (Burbutis).

APHIDS - TEXAS - Unspecified species attacking watermelon in Jim Hogg County; controls necessary. (Texas Coop. Rpt., Plyler). MARYLAND - Undetermined species light on strawberries at Fairland, Montgomery County. (U. Md., Ent. Dept.).

A SAP BEETLE (Meligethes nigrescens) - OREGON - Observed flying and congregating at spring blooms week of April 8. (Goeden).

TOMATO FRUITWORM (Heliothis zea) and TOMATO HORNWORM (Protoparce quinquemaculata) - TEXAS - Heavy egg laying of both species noted in lower Rio Grande Valley. (Deer).

POTATO PSYLLID (Paratrioza cockerelli) - NEVADA - Adults heavy on various plants, especially olive trees; moderate numbers attracted to lights in Las Vegas-Henderson area, Clark County. (Bechtel, Zoller).

MELON APHID (Aphis gossypii) - ARIZONA - Averaged 15-20 per plant on young melons in central and southwestern areas. (Ariz. Coop. Sur.).

CLOVER MITE (Bryobia praetiosa) - CALIFORNIA - Medium on cantaloup plantings in Holtville, Imperial County. (Cal. Coop. Rpt.).

BROWN WHEAT MITE (Petrobia latens) - CALIFORNIA - Medium on cantaloup plantings in Holtville, Imperial County. (Cal. Coop. Rpt.).

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - CALIFORNIA - Heavy larval populations occurred in cabbage planting in Santa Maria, Santa Barbara County. Becoming more prevalent in localities where known to occur during past few months. (Cal. Coop. Rpt.).

CABBAGE SEEDPOD WEEVIL (Ceutorhynchus assimilis) - OREGON - Adults common on mustard bloom in Willamette Valley. (Goeden).

DIAMONDBACK MOTH (Plutella maculipennis) - UTAH - Active on mustards in Ephraim-Manti-Gunnison area, Sanpete County. (Knowlton).

CABBAGE LOOPER (Trichoplusia ni) - GEORGIA - Light infestations on cabbage in Colquitt and Brooks Counties. (Johnson).

HARLEQUIN BUG (Murgantia histrionica) - TEXAS - Heavy, damaging populations attacking turnips in Medina County, and kale in Brazos County. (Texas Coop. Rpt., Prucia, Randolph).

SEED-CORN MAGGOT (Hylemya cilicrura) - CALIFORNIA - Heavy populations causing severe damage to germinating cucumbers in Bonita, San Diego County, probably this species. (Cal. Coop. Rpt.).

SEED-CORN BEETLE (Agonoderus lecontei) - COLORADO - Feeding on sugar beet seed caused 20-30 foot skips in rows; damage 0-20 percent in fields checked. (Frank, Schweissing).

POTATO APHID (Macrosiphum euphorbiae) - CALIFORNIA - Heavy populations occurring on sugar beet plantings in Newman, Stanislaus County. (Cal. Coop. Rpt.).

THRIPS - ARIZONA - Controls necessary on onions locally in central area. (Ariz. Coop. Sur.).

SWEETPOTATO WEEVIL (Cylas formicarius elegantulus) - FLORIDA - Collections made in Hamilton, Bay, Washington and Taylor Counties during period of March 29-April 5. Det. by W. Breidenbach. (Fla. Coop. Sur.).

MEADOW SPITTLEBUG (Philaenus spumarius) - OREGON - Egg hatch observed in mid-Willamette Valley strawberry fields week of April 8. (Every). MARYLAND - Nymphs appearing on strawberries at Fairland, Montgomery County. (U. Md., Ent. Dept.).

STRAWBERRY APHID (Pentatrichopus fragaefolii) - OREGON - Abundant in many Willamette Valley strawberry fields. (Every).

SPIDER MITES - MARYLAND - Eggs of undetermined species light on strawberries at Fairland, Montgomery County. (U. Md., Ent. Dept.).

MITES - NEW JERSEY - Extremely heavy in one field of strawberries and moderate in another, but negligible in most fields at Hammonton, Atlantic County. (Ins.-Dis.-Weed Newsltr., Apr. 10).

TOBACCO INSECTS

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - GEORGIA - Moderate to heavy on tobacco in the field in Tift, Colquitt, Brooks, Cook, Berrien and Irwin Counties. (Johnson).

WIREWORMS - GEORGIA - Moderate to heavy on tobacco in the field in Tift and Irwin Counties. (Hays, Brannen, Johnson).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Five adults found in 2 Cameron County fields, which is much lower than found in same area by mid-March of 1961. (Deer).

COTTON APHID (Aphis gossypii) - ARIZONA - Light on seedling cotton throughout central area. (Ariz. Coop. Sur.). TEXAS - Found in nearly all areas of lower Rio Grande Valley, but treatment required in only few fields. (Deer).

COTTON FLEAHOPPER (Psallus seriatus) - TEXAS - One damaging population reported from Starr County. Very light infestations also reported from Starr County and from one field northwest of Mission, Hidalgo County. (Deer).

COTTON STAINER (Dysdercus suturellus) - FLORIDA - Infestation heavy on cotton at Ft. Meyers, Lee County, April 6. (Faircloth).

THRIPS - ARIZONA - Few present in central area seedling cotton, but fields relatively free of infestations in most instances. (Ariz. Coop. Sur.). TEXAS - Generally light and scattered in lower Rio Grande Valley. (Deer).

SPIDER MITES - TEXAS - Generally light and scattered in lower Rio Grande Valley. (Deer).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - WISCONSIN - Examination of Austrian and mugho pines in Sheboygan and Jefferson Counties revealed less than 10 percent survival of this pest. (Wis. Ins. Sur.). OREGON - Examination of 187 samples taken from 28,061 trees on 38,485 properties during survey in spring to April 6 were negative. (Larson).

PITCH-PINE TIP MOTH (Rhyacionia rigidana) - ARKANSAS - Of approximately 1,250 moth specimens collected during past 5 years, 64 determined as this species. Previously reported only from Washington County, this species has now been recorded from Lincoln, Cleveland, Ashley, Union and Hempstead Counties. Thus, it is apparent that R. rigidana likely occurs over the entire State in mixed populations with Nantucket pine tip moth (R. frustrana), but at low levels. Examinations were made by W. E. Miller, U. S. Forest Service. (Ark. For. Pest Rpt., Apr.).

ZIMMERMAN PINE MOTH (Dioryctria zimmermani) - ARKANSAS - Larvae feeding in or around bark scars damaged numerous trees in 5 to 6-year-old plantation in Union County. This species is probably more widespread in State than records indicate. (Ark. For. Pest Rpt., Apr.).

PINE TIP MOTHS - ARKANSAS - Adult emergence nearly complete in southern part of State. Fair weather favored activity during mid and late March. Peak emergence occurred in this area week of March 18. Seasonal activity much slower in northern area, where peak emergence is yet to occur. (Ark. For. Pest Rpt., Apr.).

SILVER-SPOTTED TIGER MOTH (Halisidota argentata) - CALIFORNIA - Larvae collected from white fir on January 12 in Amador County; rearing on Monterey pine underway; emergence expected shortly. (Cal. Coop. Rpt.).

BARK BEETLES - CALIFORNIA - Dendroctonus spp. and Ips spp. continued active during January and February in lower-elevation pine stands from Middle Fork of Feather River southward into southern part of State. In area between North San Juan, Nevada County, north and westward through Yuba County to Enterprise, Butte County, 387 infested trees reported on 141 acres distributed over 5.5 townships. Activity was reported on an estimated 1,100 infested trees on 9,694 acres in area immediately north and east of Placerville, El Dorado County; one report of Ips spp. activity several miles west of this location was received. In an area of about 9 townships between Mokelumne River on the north and Stanislaus River on the south, loss appears to be high; an estimated 10,771 trees on 19,000 acres.

Activity distributed over about 2 townships in vicinity of Mariposa, Mariposa County; moderate tree loss occurred several miles south of Crane Flat, Yosemite National Park, and on South Fork of Merced River northwest of Wawona, Mariposa County; an estimated 1,142 trees were involved on 4,602 acres. Activity reported in Balance Rock area, Tulare County, and in 3 townships to the north, where 441 trees were recorded infested on 1,158 acres. Although bark beetles are very active in southern part of State, only 4 reports were submitted from this area; however, one report listed 2,500 trees scattered over 34,930 acres. In area north of Middle Fork of Feather River, only 4 reports of activity by Ips spp. and Dendroctonus brevicomis were received during this same 2-month period; these reports were widely separated and concerned 235 trees infested on an estimated 1,800 acres. (Cal. Coop. Rpt., USFS). ARKANSAS - D. terebrans and Ips spp. have been held down by continued cold temperatures. D. terebrans increased behind a one-year-old harvest and is very heavy on standing trees. Both species may be expected to increase in favorable situations. (Ark. For. Pest Rpt., Apr.).

FIR ENGRAVER (Scolytus ventralis) - CALIFORNIA - Active in several localized areas; about 200 trees in Holcomb Creek, San Bernardino County; only area of much loss. (Cal. Coop. Rpt.).

A ROUNDHEADED WOOD BORER (Paratimia conicola) - CALIFORNIA - One specimen found in a bishop pine cone at Caspar, Mendocino County. This is a new host record; additional specimens desired. (Cal. Coop. Rpt., USFS).

BALSAM TWIG APHID (Mindarus abietinus) - NORTH CAROLINA - Collected from Fraser fir tips near Mt. Mitchell, Yancey County, on July 10, 1961. This is a new State record. (Jones).

WHITE-PINE APHID (Cinara strobi) - MARYLAND - Eggs noted on white pines in Baltimore and Harford Counties. (U. Md., Ent. Dept.).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - VIRGINIA - Infested white pine locally in Troutville, Botetourt County. (Amos, Boitnott, Apr.4). WISCONSIN - Prevalent on several Austrian pines observed in Sheboygan and Jefferson Counties; incidence of parasitism very low. (Wis. Ins. Sur.).

BLACK PINE LEAF SCALE (Aspidiotus californicus) - CALIFORNIA - Reported on ponderosa pine in Charlton-Chilso area of Angeles National Forest. (Cal. Coop. Rpt., USFS).

TENT CATERPILLARS (Malacosoma spp.) - RHODE ISLAND - First hatch of M. americanum seen April 10 in Cranston, Providence County; larvae still on egg mass, web not begun. (Mathewson, Cartier). NEW YORK - Malacosoma spp. hatching in Riverhead area, Suffolk County. (N. Y. Wkly. Rpt., Apr. 9). DELAWARE - First larvae and small tents of M. americanum noted in Sussex County, April 10. (MacCreary). VIRGINIA - First instars of M. americanum active in Halifax and Pittsylvania Counties. Eggs probably hatching in most of State. Most conspicuous on native cherry and apple trees. (Tarpley). NORTH CAROLINA - Number of M. americanum noted during past few weeks. (Jones). FLORIDA - M. americanum infested native Prunus sp. at Gainesville, Alachua County. Det. by L. A. Hetrick. First adult male of season attracted to light. (Hetrick). TEXAS - Fewer reports of M. disstria received; populations apparently declining. (Texas Coop. Rpt.). OKLAHOMA - M. americanum common on native plums throughout southeast, north central, west central and east central areas. (Okla. Coop. Sur.). ARKANSAS - M. americanum appeared in northwestern part of State. (Ark. Ins. Sur.).

PECAN NUT CASEBEARER (Acrobasis caryae) - TEXAS - First-generation larvae appearing in Fort Bend County. (Texas Coop. Rpt., Murray).

A NOTODONTID MOTH (Datana sp.) - TEXAS - Light locally in Fort Bend County; this is earliest appearance in several years. (Texas Coop. Rpt., Murray).

ELM LEAF BEETLE (*Galerucella xanthomelaena*) - NEVADA - Numerous adults emerging from hibernation in Reno-Sparks area, Washoe County. (Gallaway, Gardella). RHODE ISLAND - Becoming active in buildings. (Mathewson, Cartier, Apr. 10).

BAGWORM (*Thyridopteryx ephemeraeformis*) - VIRGINIA - Common on locust trees locally in Church View, Middlesex County. (Rowell, Edwards, Mar. 30).

MIMOSA WEBWORM (*Homadaula albizziae*) - CALIFORNIA - Reported feeding on silk-tree in Chico, Butte County. (Cal. Coop. Rpt.).

A COSMOPTERYGID MOTH (*Periploca* n. sp.) - CALIFORNIA - Continues damaging to junipers in several locations; medium larval populations damaged juniper in Vallejo, Solano County. (Cal. Coop. Rpt.).

A SEAGRAPE BORER (*Hexeris enhydris*) - FLORIDA - Heavy on seagrape at Hialeah, March 30, and at Homestead, February 1, in Dade County. (Stegmaier, Knowles).

NOCTUIDS - FLORIDA - *Litoprosopus futilis* severely infested blooms of saw palmetto prior to opening at Sun City, Hillsborough County. (Hale, Jorgensen, Mar. 29). *Xanthopastis timais* light on 2,000 amaryllis plants at Dover, Hillsborough County. (Lowe, Mar. 28).

BRONZE BIRCH BORER (*Agrilus anxius*) - DELAWARE - Infested 40-50 birches in nursery in northern New Castle County. Many trees with broken tops and several dead as result of attacks; tree diameters ranged one-half to 4 inches. (Kelsey).

WHITE-PINE WEEVIL (*Pissodes strobi*) - CONNECTICUT - Controls recommended on white pine and spruce on home plantings. (Savos). MASSACHUSETTS - Treatment of upper terminals of spruce and white pine recommended. (Crop Pest Cont. Mess.).

MELON APHID (*Aphis gossypii*) - CALIFORNIA - Heavy populations on *Pittosporum tenuifolium* in Daly City, San Mateo County; buildup developed rapidly during past 10 days. (Cal. Coop. Rpt.). FLORIDA - Moderate on *Ixora* sp. and *Crossandra* sp. at Stuart, Martin County, April 4, and light on *Baccharis halimifolia* at Dania, Broward County, April 4. (Campbell, McLean).

SPIREA APHID (*Aphis spiraecola*) - FLORIDA - Moderate on *Viburnum suspensum* at Davie, Broward County, March 22, and light on *Ixora* sp. at Stuart, Martin County, April 5. (McLean, Prange).

GREEN PEACH APHID (*Myzus persicae*) - PENNSYLVANIA - Appears to be most serious aphid in greenhouses throughout State; attacked chrysanthemums and cinerarea. (Udine).

GRAPEVINE APHID (*Aphis illinoisensis*) - FLORIDA - Severely infested wild grape at White City, St. Lucie County. (Campbell, Prange, Mar. 6).

APHIDS - OKLAHOMA - Observed on caladium plants in greenhouse in Sapulpa, Creek County. (Okla. Coop. Sur.). MISSOURI - Several species present in moderate to heavy numbers on most budding ornamentals in central area. (Munson). INDIANA - First instars and hatching observed on hawthorn in Tippecanoe County. (Dobson). DELAWARE - *Cinara tujafilina* injured nursery plantings of arborvitae in northeastern Sussex County. (Bray).

OYSTERSHELL SCALE (*Lepidosaphes ulmi*) - UTAH - Severe on many ash trees along streets in Manti and Ephraim, Sanpete County. Controls necessary several times to prevent death of trees. (Knowlton). VIRGINIA - Severely injured *Cornus flaviramea* at Virginia Polytechnic Institute, Montgomery County; this is a new host record for this pest. (Amos).

BROWN SOFT SCALE (*Coccus hesperidum*) - TEXAS - Heavy, local infestation on dooryard oaks in Jefferson County. (Newton).

A PIT SCALE (Asterolecanium puteanum) - DELAWARE - Locally heavy on American holly in Sussex County. (Burbutis).

Coccids in Florida - Chrysomphalus aonidum infested Podocarpus maki at Winter Haven, Polk County, on March 29; severely infested Zamia sp. and moderately infested camphor-tree at Dover, Hillsborough County, on March 28; and severely infested Cycas revoluta at Lakeland, Polk County, on April 3. Coccus viridis severely infested queen crapemyrtle at Stuart, Martin County, on March 26. C. acuminatus lightly infested Ixora sp. at Dover on March 28. Light to moderate infestations of Ischnaspis longirostris noted on Rhapidophyllum histrix and Chamaerops humilis at North Miami, Dade County, on March 28. Lepidosaphes camelliae infested 100 percent of 18 holly trees at Port Orange, Volusia County, on March 29. Parlatoria proteus moderately infested 100 plants of Philodendron wendlandii at Eloise, Polk County, on March 30. Light to moderate infestations of Phenacaspis cockerelli on southern magnolia at Eloise on March 26, and on Strelitzia reginae on March 29. Pseudococcus nipae severely infested 27 arica palms at Fort Myers, Lee County, on April 5. Toumeyella liriodendri lightly infested sweetbay at Cypress Gardens, Polk County, on April 3. (Fla. Coop. Sur.).

NATIVE HOLLY LEAF MINER (Phytomyza ilicicola) - SOUTH CAROLINA - Practically every holly on Clemson College campus, Oconee County, with mined leaves. Most in pupal stage, some emerging. (Nettles et al).

A STEM SAWFLY (Janus bimaculatus) - WISCONSIN - Larvae very scarce in area of Dane County; depredation by birds apparently heavy. (Wis. Ins. Sur.).

INSECTS AFFECTING MAN AND ANIMALS

CATTLE GRUBS (Hypoderma spp.) - UTAH - Counts of Hypoderma spp. low to few in cattle treated with new systemics in fall of 1961. Counts ranged 0-19 larvae per animal on untreated cattle. Larvae dropping from backs of animals; both species present in area. (Knowlton). NEW MEXICO - Adults of H. lineatum active in Harding County. (N. M. Coop. Rpt.). OKLAHOMA - Adult activity of H. lineatum continues throughout State. (Okla. Coop. Sur.). NORTH CAROLINA - H. lineatum infestations appear to be greater in eastern part of State this year than for past several years. (Jones).

FACE FLY (Musca autumnalis) - INDIANA - Emerged from overwintering habitats in Franklin County and collected outside of farm buildings. None observed on cattle in nearby pastures. This is first report of season in State. (Matthew). ILLINOIS - Observed for first time this season April 10 on one Pike County herd; ranged 0-3 (averaged 0.4) per face. None found on 3 other herds in county. (Ill. Ins. Rpt.).

HORN FLY (Haematobia irritans) - OKLAHOMA - General buildup occurred in southern part of State; ranged 90-125 per cow in southeast, with populations of 300 per cow in Love County (south central). (Okla. Coop. Sur.).

BLOW FLIES - UTAH - Phormia regina moderate about cattle yards on ranches in Manti-Ephraim area, Sanpete County. Unspecified species numerous and active at Kanab and Glendale, Kane County. (Knowlton).

LITTLE HOUSE FLY (Fannia canicularis) - CALIFORNIA - Light populations occurring in many locations over State. A fungus, Entomophthora muscae, active on this species and on Musca domestica again this year. Current infections of this fungus indicate possibilities of good control experienced during 1960. (Cal. Coop. Rpt.).

STABLE FLY (Stomoxys calcitrans) - ILLINOIS - Noted for first time this season; 2 well-fed specimens observed on side of barn in Macon County on April 11. (Ill. Ins. Rpt.).

SHEEP KED (Melophagus ovinus) - UTAH - Numerous in some flocks of sheep at Panguitch and Boulder, Garfield County, and at Kanab, Kane County. (Knowlton).

MOSQUITOES - DELAWARE - Adults of Anopheles punctipennis noted leaving hibernation during period April 7-13. (Darsie, Murphey). UTAH - Occasional adult of unspecified species noted at Kanab, Kane County. (Knowlton).

CATTLE LICE - UTAH - Moderate to severe on cattle in Manti area, Sanpete County, where controls have been neglected. Controls recently applied to 300 cattle at Marysvale, Piute County, and 300 cattle in Garfield County. (Knowlton).OKLAHOMA - Several species continue heavy in southeast area; activity also continues in remainder of eastern part of State. (Okla. Coop. Sur.). MISSOURI - Unspecified species moderate to heavy on several herds of stock cattle and some feeder calves in northwest area. (Munson).

HORNETS (Polistes spp.) - RHODE ISLAND - Becoming active in buildings. (Mathewson, Cartier, Apr. 10).

LONE STAR TICK (Amblyomma americanum) - OKLAHOMA - Medium to heavy on cattle in southeast, south central and east central areas; 10-40 per head. Up to 6 per head noted on hogs in McCurtain County. (Okla. Coop. Sur.).

EAR TICK (Otobius megnini) - UTAH - Common on cattle at Boulder and Escalante, Garfield County; less common elsewhere in county, and at Elsinore, Sevier County. (Knowlton).

TICKS - UTAH - Attacking humans in Panguitch area, Garfield County. (Knowlton).

TROPICAL RAT MITE (Ornithonyssus bacoti) - CALIFORNIA - Invaded residence in Sacramento, Sacramento County. Rash caused by bites on 3 occupants of household diagnosed as nervous disorder until discovery of source of mites. Doctors experience difficulty diagnosing attacks of bird and rat mites. (Cal. Coop. Rpt.).

HOUSEHOLD AND STRUCTURAL INSECTS

DERMESTID BEETLES - OREGON - Larvae of undetermined species found in newly opened can of powdered reducing preparation in Salem, Marion County. (Capizzi). NORTH DAKOTA - Attagenus piceus reported from several homes throughout State. (N. D. Ins. Sur.). PENNSYLVANIA - Fair number of Trogoderma inclusum larvae found in a cellulose-crepe type insulating material in attic of home in Somerset, Somerset County. Det. by P. J. Spangler. (Udine, Feb. 23).

OLD-HOUSE BORER (Hylotrupes bajulus) - PENNSYLVANIA - Approximately 60 specimens emerged from maple floor of high school gymnasium at State College, Centre County. (Adams).

SOUTHERN LYCTUS BEETLE (Lyctus planicollis) - VIRGINIA - Adults common in home in Hampton. (Amos, Adams).

CLOTHES MOTHS - DELAWARE - Tinea pellionella infested rugs in home in Sussex County. (Bray). NORTH DAKOTA - Tineola bisselliella present in Fargo home, Cass County. (N. D. Ins. Sur.).

BROWN-BANDED COCKROACH (Supella supellectilium) - UTAH - Infested restaurant at Circleville, Piute County; this is a new county record. (Knowlton).

EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) - PENNSYLVANIA - Winged forms noted at Tyrone,Blair County. (Guyton, Apr. 3). MARYLAND - Reproductives, probably this species, noted swarming in several homes in Anne Arundel and Prince Georges Counties. (U. Md., Ent. Dept.).

WESTERN SUBTERRANEAN TERMITE (*Reticulitermes hesperus*) - NEVADA - Several new infestations found in homes in southern Washoe County. (Bechtel). CALIFORNIA - Medium to heavy infestations in several areas of State. Medium population damaging house in Loomis, Placer County; heavy in Susanville, Lassen County and in Saratoga, Santa Clara County. (Cal. Coop. Rpt.).

SUBTERRANEAN TERMITES - RHODE ISLAND - Alates first reported at Cranston, Providence County, February 2; reports and specimens received regularly during past 3 weeks, and now several specimens being received daily. (Mathewson, Cartier, Apr. 10). CONNECTICUT - Swarming throughout State. (Savos). NEW YORK - Swarms reported in Nassau County. (N. Y. Wkly. Rpt., Apr. 9). VIRGINIA - Reported from Kenbridge, Lunenburg County, April 5; Lynchburg, Campbell County, April 1; Vinton, Roanoke County, March 26. (Rowell, Matheny). OKLAHOMA - *Reticulitermes* sp. noted in home in Cleveland County. (Okla. Coop. Sur.). SOUTH DAKOTA - Winged adults and workers of unspecified subterranean termites collected in Gregory County. (Mast). NEVADA - *Reticulitermes* sp. swarming was heaviest in mid-March; presently terminating. (Earnist).

ANTS - CONNECTICUT - Unspecified species swarming throughout State. (Savos). NEW YORK - *Acanthomyops* spp. have begun to swarm in Nassau County. (N. Y. Wkly. Rpt., Apr. 9). PENNSYLVANIA - Winged forms of *Prenolepis imparis* noted around home in Harrisburg, Dauphin County. Det. by E. U. Balsbaugh. (Balsbaugh). NORTH DAKOTA - *Camponotus pennsylvanicus* reported active at several locations. (N. D. Ins. Sur.). UTAH - Unspecified species troublesome in several homes in Panguitch, Garfield County. (Knowlton).

CLOVER MITE (*Bryobia praetiosa*) - RHODE ISLAND - Scattered complaints of activity about buildings during past 2 weeks. (Mathewson, Cartier, Apr. 10). CONNECTICUT - Invaded many homes in State; controls recommended. (Savos). NEW YORK - Beginning to move from buildings onto lawns in Nassau County. (N. Y. Wkly. Rpt., Apr. 9). PENNSYLVANIA - Entered homes through cracks around windows at Paoli, Chester County. (Sleesman). DELAWARE - Newly reported home invasions very numerous. (Burbutis). MARYLAND - Caused considerable annoyance by entering homes in Anne Arundel and Baltimore Counties. (U. Md., Ent. Dept.). VIRGINIA - Adults invaded laboratory at Medical College of Virginia, Charlottesville, Albemarle County, April 2, and home in Vienna, Fairfax County, April 6. (Matheyn, Amos). ALABAMA - Heavy infestations in residential areas in Mobile County. (Seibels). UTAH - Entered number of homes at several locations in Garfield County. (Knowlton). NEVADA - Entered homes in Elko, Elko County, and Reno, Washoe County. (Nev. Coop. Rpt.).

STORED-PRODUCT INSECTS

Stored-product Insects in Alabama - Survey showed the following insects to be abundant in most grain bins in Lee County: YELLOW MEALWORM (*Tenebrio molitor*); adults and larvae of DARK MEALWORM (*T. obscurus*), and CADELLE (*Tenebroides mauritanicus*); RED FLOUR BEETLE (*Tribolium castaneum*), SAW-TOOTHED GRAIN BEETLE (*Oryzaephilus surinamensis*), ALMOND MOTH (*Ephestia cautella*), CIGARETTE BEETLE (*Lasioderma serricorne*), a PYRALID MOTH (*Aglossa caprealis*) and RICE WEEVIL (*Sitophilus oryzae*). (Guyton). Very heavy infestations of PEA WEEVIL (*Bruchus pisorum*) noted in stored peas in Montgomery County. (Seibels).

Stored-product Insects in Nevada - CONFUSED FLOUR BEETLE (*Tribolium confusum*), RED FLOUR BEETLE (*T. castaneum*) and a DARKLING BEETLE (*Latheticus oryzae*) lightly infested mixed feeds, grains and milldust in a feedstore in Moapa Valley, Clark County. (Bechtel, Zoller).

GRANARY WEEVIL (*Sitophilus granarius*) - OREGON - Severe, local infestation occurred in grocery store in Portland, Multnomah County, in early April. (Carl).

BENEFICIAL INSECTS

TWO-SPOTTED LADY BEETLE (*Adalia bipunctata*) - UTAH - Active in areas of Cache, Weber, Salt Lake, Juab, Utah and Sanpete Counties. (Knowlton). VIRGINIA - Noted in Wirtz, Franklin County. (Rowell, Tucker, Apr. 5).

LADY BEETLES - NEW MEXICO - Abundant in alfalfa checked in Dona Ana and Sierra Counties. (N. M. Coop. Rpt.). TEXAS - Significant numbers appearing in small grain, vetch and alfalfa fields in central and north central areas. (Turkey, Newton). OKLAHOMA - Several species continue to increase in southwest and west central areas; up to 10 larvae per sweep observed on alfalfa in southwest and 2-4 per linear foot on wheat in Cordell area, Washita County. Lighter counts common in south central and east central areas. (Okla. Coop. Sur.). ARKANSAS - Reproduction of several species occurring in southern part of State; few eggs and larvae present. (Ark. Ins. Sur.). VIRGINIA - Numerous adults of *Coleomegilla maculata fuscilabris* noted March 22 in Pulaski, Pulaski County; March 26 in Haysi, Dickenson County; and April 5 in Chatham, Pittsylvania County. Still massed in overwintering sites. (Tarpley, Meek, Rowell, Mullins, Blair).

GREEN LACEWINGS (*Chrysopa* spp.) - TEXAS - Significant numbers building up in small grain, vetch and alfalfa in central and north central areas. (Turkey, Newton). OKLAHOMA - Considerable numbers noted in some wheat fields checked in Cordell area, Washita County. Present also in southwest, south central and southeast. (Okla. Coop. Sur.). ARKANSAS - Reproduction of several species occurring in southern part of State. (Ark. Ins. Sur.).

DAMSEL BUGS - NEW MEXICO - Abundant in alfalfa fields checked in Dona Ana and Sierra Counties. (N. M. Coop. Rpt.).

A FLOWER BUG (*Orius* sp.) - NEW MEXICO - Abundant in alfalfa fields checked in Dona Ana and Sierra Counties. (N. M. Coop. Rpt.).

SYRPHIDS - TEXAS - Moderate, widespread larval populations found on cotton in Cameron County. (Texas Coop. Rpt., Day).

PARASITIC HYMENOPTERONS - ARKANSAS - Very active over State. (Ark. Ins. Sur.). OKLAHOMA - An undetermined species active in wheat in southern part of State. (Okla. Coop. Sur).

MISCELLANEOUS INSECTS

MAY BEETLES (*Phyllophaga* spp.) - FLORIDA - The following collections have been made from blacklight traps: *P. glaberrima* at Miami International Airport, Dade County, on March 21, 29 and April 4. *P. latifrons* from same locality on March 21 and at Fort Myers, Lee County, on March 28. *P. ulkei* at Pensacola, Escambia County, on April 10. *P. parvidens* at Orlando, Orange County, on April 2 and at Gainesville, Alachua County, on April 10. *P. schaefferi* at Quincy, Gadsden County, on April 9. *P. elongata* at Lake Letta subdivision, Highlands County,on April 5. *P. tecta* at Gainesville on April 10. *P. cupuliformis* at Chiefland, Levy County, on April 11. *P. bruneri* at known localities in Miami on March 22 and 29. (Fla. Coop. Sur.).

JAPANESE BEETLE (*Popillia japonica*) - ILLINOIS - Treatments have been completed in the East St. Louis area on a total of 682.5 acres, which includes all finds in the area. (Ill. Ins. Rpt.). Matzenbacher; Apr. 5).

A SCARAB (*Onthophagus depressus*) - FLORIDA - Collected in blacklight trap at Lake Letta subdivision, Highlands County, on March 21; this South African species has been collected in this area previously, but this is first collection this season. (Fla. Coop. Sur.).

NOCTUIDS (Eupsilia spp.) - WISCONSIN - Presence of E. morrisoni and E. vinulenta adults creating nuisance at maple syrup tapping operations in northeast. Reports indicate populations lower than in other years. (Wis. Ins. Sur.).

A COCKROACH (Hemiblabera tenebricosa) - FLORIDA - Collected in moderate numbers under boards and debris on Elliott Key, Dade County, on April 5. This species has only been found on 3 islands in vicinity of Key Largo and has not been found on the mainland of Florida. (Woodruff, Humphries, Knowles).

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - OKLAHOMA - Surveys in Atoka, Bryan, Coal, Johnston, Marshall, Muskogee and Pittsburg Counties were negative. (Okla. Coop. Sur.).

CORRECTION

CEIR 12(14):307 - SPOTTED ALFALFA APHID (Therioaphis maculata) - TEXAS - Should read: "Counts ranged 50-250 per sweep in alfalfa in Brazos, Burleson and Robertson Counties; ---. (Newton)."

ADDITIONAL NOTES

IDAHO - Adults of ALFALFA WEEVIL (Hypera postica) and CLOVER ROOT CURCULIO (Sitona hispidula) occurring spottedly on white Dutch clover stands in Grangeville area, Idaho County. (Studer, Cook). CLOVER LEAF WEEVIL (H. punctata) larvae infesting crowns of alfalfa in field near Mountain Home, Elmore County; up to 6 larvae per crown noted. (Edwards). Undetermined CUTWORMS present on Bissell Creek rangeland, approximately 4 miles north and 3.5 miles west of Emmett, Gem County. Second and third instars, per square foot, averaged 0.6 on flat land and 1.2 on south slopes, on fall seeded desert wheatgrass. Generally, damage slight, but local areas showed considerable feeding. (Waters). All reports for week ending April 6. (Manis).

CHANGE OF NAME OF MIGRATORY GRASSHOPPER

The scientific name of the MIGRATORY GRASSHOPPER of the United States and Canada has been changed. This species which was widely known as Melanoplus atlanis (Riley) until 1917, then as M. mexicanus (Saussure) until 1958, and since 1958 as M. bilituratus (Walker), has been found to have an earlier name, Melanoplus sanguinipes (Fabricius). It is much regretted that a change is necessary. The resurrection of sanguinipes, based on a very brief description and referred to the old broad genus Gryllus, arises from the recent discovery of the type specimen in Copenhagen, Denmark, as discussed by A. B. Gurney (Proc. Biol. Soc. Washington, 75: 189-192, 1962). Accordingly, the scientific name of the migratory grasshopper is Melanoplus sanguinipes (F.).

Ashley B. Gurney
Entomology Research Division
Agricultural Research Service
Washington 25, D. C.

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Agrot. ips.	Perid. saucia	Estig. acrea	Felt. subterr.	Spod. exig.	Trich. ni	Helio. zea
ARIZONA								
*Yuma 4/1-6				53	294	147	122	145
ARKANSAS								
Kelso 4/5-11	5		3					
CALIFORNIA								
Shafter Exp. Sta. 4/3-11	7	3	2		3	11		
FLORIDA								
Quincy 4/9		5			3			1
Gainesville 4/10		1			7			
KANSAS								
Garden City 4/2-9		3						
SOUTH CAROLINA								
Charleston 4/2-8	2				3			1
Charleston 4/9-15	13	1			6			2
TEXAS								
Waco 4/7-13	82		10	12	11			

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* Three traps - Yuma.

Additional Light Trap Collection: COLORADO: New Liberty (4/1-7) - ARMY CUTWORM (Chorizagrotis auxiliaris) - 18.

****

Weather of the Week Ending April 16 (cont'd from page 376)

The only precipitation of significance in the Far West was on the North Pacific coast, and amounted to only 0.50 inch. Elsewhere in the West only light showers occurred. The soil moisture supply was being depleted by high winds and warm, dry days in the Southwest. The Gulf States and southern Appalachian areas received large amounts. Tupelo and Philadelphia, Mississippi, had over 8 inches. Tallulah, Louisiana, had 3.72 inches in one 24-hour period and a total of 4.24 inches for the week. Snow showers and flurries were common across the Northern States much of the period, and in the mountains of the West during the first half. On Thursday, up to 1 foot of snow fell at Pipestone, Minnesota, as a storm over Iowa spread precipitation through a wide area. Another system just off the east coast left up to 15 inches of snow at Greenville, Maine, with 6 to 10 inches in surrounding areas of northern New England on the 12th and 13th. As trailing fronts from the low pressure systems swept across the country, numerous thunderstorms and showers were touched off. Hail was reported to have fallen in various places south of a line from New England to Missouri. Midweek storms were reported to have left hail from marble to ping pong-ball size in the latter State. Hailstorms in northern Louisiana and central Mississippi were reported to have dropped hail of "golf to baseball size." Little snow cover was left in the country as much of what fell melted quickly; up to 9 inches remained in northern Maine Monday morning and up to 12 inches in the central mountains of New York. Langdon, North Dakota, has 10 inches of snow on the ground and up to 14 inches of snow cover was reported from northeastern and north central Minnesota. Snow was rapidly melting in the mountain valleys of the West. (Summary supplied by U. S. Weather Bureau).

Estimates of Damage by the European Corn Borer to Grain Corn in the United States in 1961

Compiled in Survey and Detection Operations, PPC, ARS

The loss of corn grown for grain from damage attributed to the European corn borer (*Ostrinia nubilalis*) in 1961 is estimated to be 65,044,000 bushels. This loss is approximately 1.8 percent of the total national crop estimated at 3,624,313,000 bushels. 1/ The value of the crop lost, based on the season average prices received by farmers for corn 2/, is $68,998,000. These loss estimates are only for the states shown on Table 1 and are based on the counties or districts surveyed during the fall of 1961 within those states. 3/

Table 1 is a composite of State and Federal estimates. These estimates were prepared by using production data 1/, and prices received 2/, released by the Statistical Reporting Service. The basis for the loss estimates was determined by the survey of European corn borer populations during the fall of 1961. 3/ The index of 3 percent loss per borer per plant was used to compute the loss in bushels.

Estimated losses caused by the European corn borer in the last ten years are as follows:

1961	65,044,000	Bushels	$ 68,998,000
1960	102,991,000	"	96,085,000
1959	67,763,000	"	71,979,000
1958	100,699,000	"	98,434,000
1957	180,897,000	"	158,841,000
1956	97,971,000	"	119,535,000
1955	155,355,000	"	182,579,000
1954	191,614,000	"	261,415,000
1953	90,000,000	"	125,466,000
1952	53,270,000	"	77,205,000

1/ Crop Production, 1961 Annual Summary by States, Crop Reporting Board, Statistical Reporting Service, USDA, December 15, 1961.

2/ Crop Values, Season Average Prices Received by Farmers and Value of Production - 1960 and 1961 - by States, Crop Reporting Board, Statistical Reporting Service, USDA, December 15, 1961.

3/ Cooperative Economic Insect Report, 12(1):6-14, 12(2):17, 12(4):37.

Table 1. Estimates of Damage by the European Corn Borer to Corn Grown for Grain in the United States in 1961

State	Districts Included 1/	Total State Production	Estimated Data			
			Value Per Bushel	Value of Production	Loss of Crop	
	Number	1,000 Bu.	Dollars	$1,000	1,000 Bu.	$1,000
Arkansas	4	8,449	1.17	9,885	46	50
Delaware	1	7,378	1.26	9,296	1,029	1,296
Illinois	7	638,176	1.06	676,467	11,488	12,177
Indiana	12	308,802	1.01	311,890	2,297	2,320
Iowa	12	747,252	1.05	784,615	25,228	26,489
Kansas	3	58,800	1.13	66,444	331	374
Maryland	3	22,140	1.23	27,232	928	1,142
Massachusetts	1	124	1.50	186	5	8
Minnesota	7	324,242	1.00	324,242	7,378	7,378
Missouri	8	175,398	1.16	203,462	2,040	2,366
Nebraska	7	279,439	1.10	307,383	6,736	7,410
New Jersey	1	5,772	1.26	7,273	260	328
North Dakota	1	5,148	1.04	5,354	97	101
Ohio	5	187,738	1.01	189,615	475	480
Pennsylvania	8	59,965	1.22	73,157	1,448	1,767
South Dakota	6	100,046	1.00	100,046	4,347	4,347
Wisconsin	9	120,377	1.06	127,600	911	965
Totals		3,049,246		3,224,147	65,044	68,998

1/ Cooperative Economic Insect Report, 12(1):6-14, 12(2):17, 12(4):37.

The Spittlebug Lepyronia coleoptrata (Linnaeus) in North America (Homoptera: Cercopidae)

Louise M. Russell [1]

The presence of Lepyronia coleoptrata (Linnaeus) in the Nearctic Region is confirmed by my determination of specimens collected in 1955 and 1961 in New York State. The species has been reported from North America for 50 years, but the early reports have not been verified. Lallemand (1912, Genera Insectorum fasc. 143:52) indicated that the species was palearctic and nearctic in distribution. Van Duzee (1917, Calif. Univ. Publ. Tech. Bul. 2:513) stated, "Oshanin credits this species to North America, but I am unable to trace his authority. If found here it is probably Alaskan." Haupt (1935?, Die Tierwelt Mitteleuropas, Homoptera, p. 156) reported that the distribution of coleoptrata was circumpolar. Doering (1930, Journ. Kans. Ent. Soc. 3(3-4):87-91), who treated the North American species of Lepyronia, did not have American examples of coleoptrata.

L. coleoptrata is said to be widely distributed in Europe and in palearctic Asia. Its hosts usually are not given, but it has been recorded from willow and Teucrium chamaedrys (Haupt, p. 156); from Spartium junceum and cultivated garden plants (including salvia and rosemary) (Silvestri, 1934, Compend. di Ent. Appl. 1:332); from cotton (Alkhazishvili, 1953, Akad. Nauk Gruzinskoi SSR Inst. Zashch. Rast. Trudy, 9:47; summary, 9:55); and from several plants by Miyao (1957, New Entomologist 6:6-11, in Japanese).

I have seen Nearctic specimens from the following counties in New York State: Broome, Cortland, Delaware, Herkimer, Lewis, Montgomery, Onondaga, Saratoga and Schenectady. The insects were collected from timothy grass, and from red and alsike clover, during July and August. Those collected in 1961 were submitted for identification by D. D. Hardee, Cornell University, Ithaca, New York.

L. coleoptrata is distinctive in having the anterior margin of the head broadly curved, the front distinctly wider than long, and the clypeus strongly inflated. This, and the other three species of Lepyronia known from America north of Mexico, may be distinguished by the characters given below. Measurements are in millimeters.

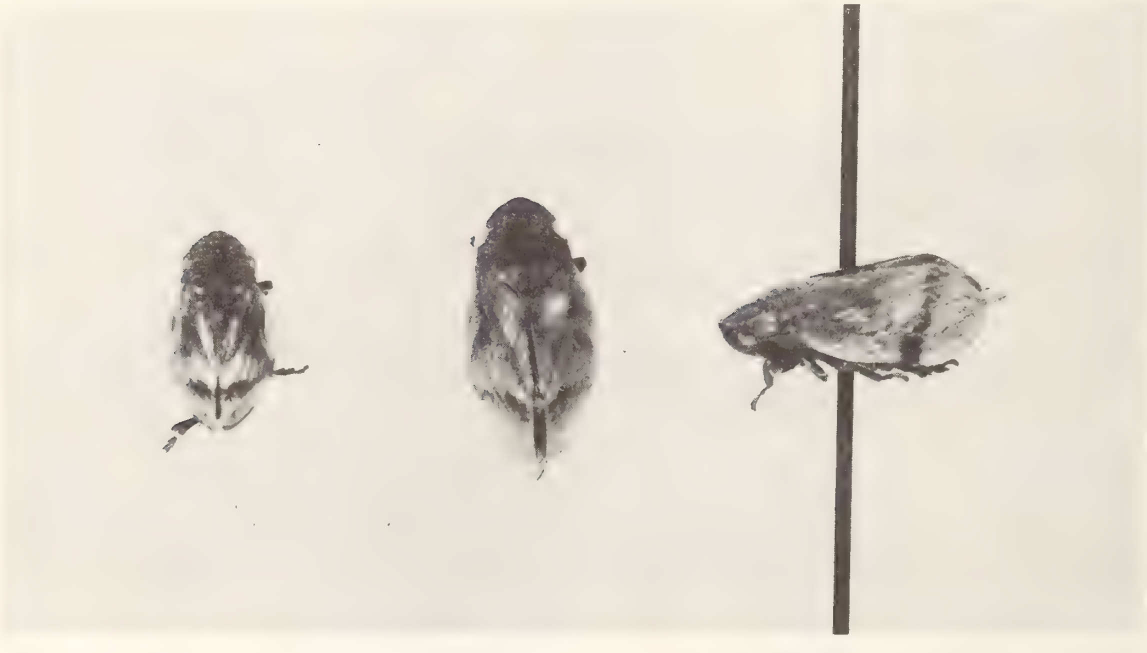
> coleoptrata (Linnaeus) - 6.10-7.50 long, 3-3.50 wide across elytra; head 1-1.50, pronotum 1-1.50 long; anterior margin of head broadly curved; front one-half wider than long; clypeus strongly inflated; head and pronotum slightly deflexed; elytron strongly curved on coastal margin, narrowly curved at apex. Light to dark tawny dorsally, predominantly dark brown to black ventrally; elytron with a dark brown to blackish V-shaped design whose anterior arm is as wide and persistent as the posterior one.
>
> gibbosa Ball - 6.75-9 long, 3-4.10 wide across elytra; head 1.50-2, pronotum 1.25-1.50 long; anterior margin of head narrowly curved; front as wide as long; clypeus moderately inflated; head and pronotum conspicuously deflexed; elytron strongly curved on costal margin, narrowly curved at apex. Light to dark tawny or grayish dorsally, predominantly tawny to dark brown ventrally; elytron without a V-shaped design, or with a dark tawny one whose anterior arm is narrower than the posterior one, or broken, or obscure.

---

[1] Insect Identification and Parasite Introduction Research Branch, Entomology Research Division, Agricultural Research Service, U. S. Department of Agriculture, Washington 25, D. C.

quadrangularis (Say) - 6.25-8 long, 2.35-3 wide across elytra; head 1-1.45, pronotum 1-1.25 long; anterior margin of head narrowly curved; front as wide as long; clypeus weakly inflated; head and pronotum very slightly deflexed; elytron moderately curved on costal margin, angular at apex. Tawny to dark brown or grayish dorsally and ventrally; elytron usually with a darker brown V-shaped design whose anterior arm is sometimes broken or obscure.

angulifera Uhler - 4.5-6 long, 2-2.25 wide across elytra; head 0.85-1.10, pronotum 0.85-1.10 long; anterior margin of head angular; front as wide as long; clypeus weakly inflated; head and pronotum strongly deflexed; elytron moderately curved on costal margin, broadly angular at apex. Medium to dark (often reddish) brown dorsally and ventrally; elytron usually with a light spot slightly before, and one at, apex.



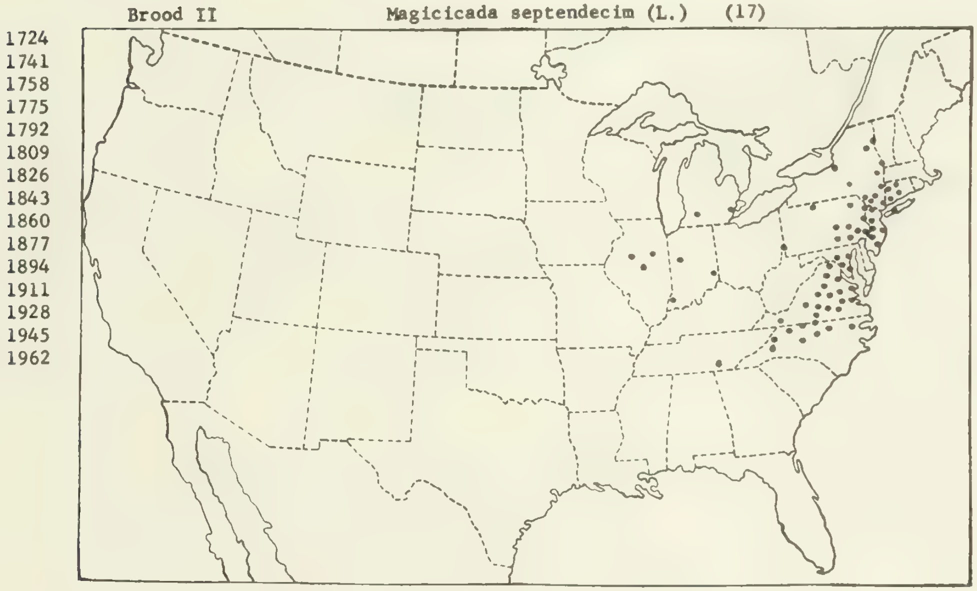
Adults of Lepyronia coleoptrata (L.)

Male - Left. Female - Center and right.

Periodical Cicada Outlook for 1962

Brood II of the 17-year race of periodical cicada (Magicicada septendecim) is expected to appear in May and June of this year in the following areas: Connecticut, Illinois, Indiana, Maryland, Michigan, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Virginia and Washington, D. C. According to records maintained in Survey and Detection Operations, the heaviest areas of infestation in former years were in Maryland, New Jersey, New York, North Carolina, Pennsylvania and Virginia. Brood XXII of the 13-year race of M. septendecim is expected to appear in eastern Louisiana and western Mississippi.

Distribution records for 1962 would be welcomed. Please submit all specimens and notes through your respective State Survey Coordinators. (See CEIR 12(13):299). The table on the following page shows the coincidence of the two races. The column on the left shows the occurrence by year of the 13-year race and the top column that of the 17-year race.



Survey and Detection Operations, PPC, ARS, USDA, 11-30-61

Table of Coincidence of Broods of Periodical Cicada

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII
XVIII		1945				1932				1919				1906			
XIX			1946				1933				1920				1907		
XX				1947				1934				1921				1908	
XXI	1961				1948				1935				1922				1909
XXII		1962				1949				1936				1923			
XXIII			1963				1950				1937				1924		
XXIV				1964				1951				1938				1925	
XXV	1978				1965				1952				1939				1926
XXVI		1979				1966				1953				1940			
XXVII			1980				1967				1954				1941		
XXVIII				1981				1968				1955				1942	
XXIX	1995				1982				1969				1956				1943
XXX		1996				1983				1970				1957			
XVIII			1997				1984				1971				1958		
XIX				1998				1985				1972				1959	
XX	2012				1999				1986				1973				1960
XXI		2013				2000				1987				1974			
XXII			2014				2001				1988				1975		
XXIII				2015				2002				1989				1976	
XXIV	2029				2016				2003				1990				1977
XXV		2030				2017				2004				1991			
XXVI			2031				2018				2005				1992		
XXVII				2032				2019				2006				1993	
XXVIII	2046				2033				2020				2007				1994
XXIX		2047				2034				2021				2008			
XXX			2048				2035				2022				2009		

Prepared in Survey and Detection
Operations, Plant Pest Control
Division, Agricultural Research
Service, U. S. Department of
Agriculture.

INTERCEPTIONS OF SPECIAL INTEREST AT U. S. PORTS OF ENTRY

Some important interceptions that were reported January 31, 1962,by the Plant Quarantine Division, ARS, USDA, follow. These reports are based on identifications received from Federal taxonomists at the U. S. National Museum during the month, but do include any of special interest from recent months that were not previously reported.

A GIANT SNAIL (*Achatina fulica* Bowdich) 3 times in baggage, one for an Ohio destination and two for California, in predeparture inspection at Honolulu, Hawaii.

A NOCTUID (*Sesamia nonagriodes* (Lef.)) and DURRA STALK BORER (*S. cretica* Led.) one each in baggage from Mediterranean area for New York destinations at New York, New York.

WHITE GARDEN SNAIL (*Theba pisana* (Müller)) 20 times; at Norfolk, Virginia, 9 times in general cargo; at Philadelphia, Pennsylvania, one time in stores; at Charleston, South Carolina, 2 times; at New York, New York, 6 times, with 2 in stores, one in baggage, 2 with cut-flower cargo and one in general cargo; and at Boston, Massachusetts, two times with general cargo.

EGYPTIAN COTTONWORM (*Prodenia litura* (F.)) (or near that species), once in baggage for California at Honolulu, Hawaii.

A FLUTED SCALE INSECT (*Icerya* sp., perhaps *seychellarum* (Westw.)) (a widespread species known to attack a large variety of hosts) in baggage intended for propagation in Hawaii at Honolulu, Hawaii.

AN OLETHREUTID (*Grapholitha* sp., near or *funebrana* (Treit.)) once in plums in baggage destined for New York and once in stores at New York, New York.

CITRUS BLACKFLY (*Aleurocanthus woglumi* Ashby) in cargo of sour limes destined for Los Angeles at El Paso, Texas, and once in baggage in transit to Texas at Brownsville, Texas.

LEEK MOTH (*Acrolepia assectella* (Zell.)) in ships stores at Cleveland, Ohio, and at Philadelphia, Pennsylvania.

VINE MOTH (*Lobesia botrana* (Schiff.)) (or near this species) 4 times in baggage destined for New Jersey, New York and Michigan, respectively, at New York, New York.

A WEEVIL (*Palaeopus* sp., probably *costicollis* (Mshl.)) 2 times in baggage at Miami, Florida.

A POTATO WEEVIL (*Epicaerus* sp., probably *cognatus* Sharp) in potatoes in baggage destined for Los Angeles, at San Ysidro, California.

A VINE MOTH (*Clysia ambiguella* (Hbn.)) at New York, New York, in peaches in baggage destined for New York.

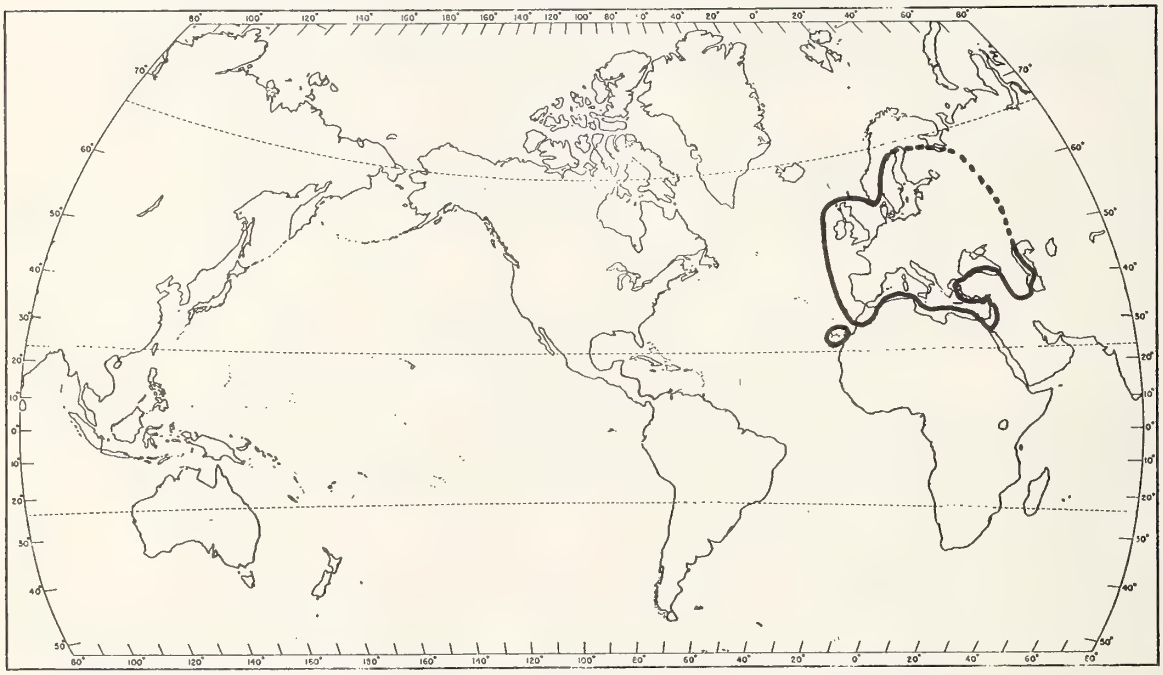
KHAPRA BEETLE (*Trogoderma granarium* Everts) 26 times; at Miami, Florida, one time in stores; at Charleston, South Carolina, one time in ship's hold; at Port Arthur, Texas, one time in stores; at Houston, Texas, 3 times with guar gum cargo and grain contaminating steel cargo for Texas; at Baltimore, Maryland, one time in ship's hold; at Wilmington, North Carolina, 2 times in each of old bagging cargo consigned to Virginia and in stores; and at New York, New York, 17 times, with 15 cargoes of guar gum, gum arabic and a grain bag consigned to New York and 2 in stores.

AN OLETHREUTID (*Matsumraeses phaseoli* (Mats.)) in string beans in stores at San Diego, California, and at Seattle, Washington.

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

CABBAGE THRIPS (Thrips angusticeps Uzel)

Economic Importance: This thrips has a wide range of host plants, some of which are more severely attacked than others. Several cole crops have been very seriously damaged in the seed bed in England, and local outbreaks on these crops have been reported in almost all areas of northern Europe. In addition, such crops as beets, flax, onions, peas, beans, summer grains and alfalfa have also suffered damage. In the Netherlands, Thrips angusticeps is considered to be by far the most important species of thrips on flax. Only two species of thrips breed on flax in the Netherlands, those being T. angusticeps and T. linarius Uzel. Damage to field crops is dependent on which generation of T. angusticeps is present. The short-winged or overwintering generation damages the young seedlings of spring crops which are not very resistant. The young plants that are not killed completely may be retarded in growth and damaged to such an extent that a reduction in yield results. Some winter crops can also be harmed by this overwintering generation. The long-winged or summer generation will infest such crops as flax, wheat, barley, rye, peas and alfalfa. In the Netherlands, larval infestations of the summer generation on flax that is grown on wheat, barley and pea stubbles is quite typical. The crop, which is not yet full grown, has a yellowish-gray color and, instead of hanging down, the tops stand up. Because the leaves assume a more horizontal position with respect to the stalks, the terminals are swollen. The top-most leaves may fall off. The growth of the flax crop is impaired so that its height falls short of that of an uninfested crop.



General Distribution of Thrips angusticeps Uzel

(Thripidae, Thysanoptera)

No. 143 of Series

As of December 1961, the Division of Plant Quarantine had records of T. angusticeps having been intercepted at United States ports of entry a total of 113 times. Ninety of these interceptions were at New York, New York; 8 at Philadelphia, Pennsylvania; 7 at Boston, Massachusetts; 2 each at Charleston, South Carolina, and Baltimore, Maryland; and one each at the following cities: Pensacola, Florida; Seattle, Washington; San Francisco, California; and Chicago, Illinois. It is apparent, from the above information, that the pest is more likely to be introduced into the United States around the North Atlantic ports; however, increased frequency of interceptions at the Great Lakes ports is quite likely. Therefore, the flax-growing areas of the North Central States are more subject to infestation than previously.

Hosts: Attacks a wide variety of field crops. Some of the more important are flax, crucifers, lettuce, spinach, beets, onions, peas, beans, alfalfa, ryegrass and summer grains.

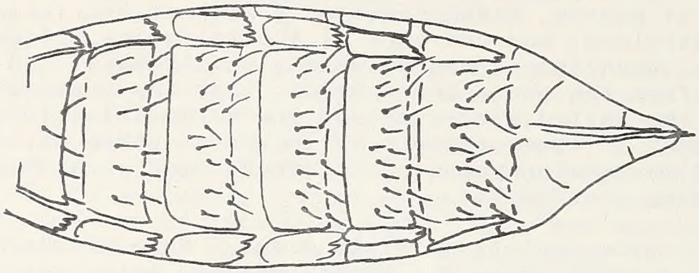
Distribution: Occurs throughout most of Europe, Morocco and the United Arab Republic (Egypt) in Africa, and Israel, Cyprus and Iran in the Middle East.

Life History and Habits: The biology, as studied in the Netherlands, is as follows: Two generations a year occur, a short-winged overwintering generation and a long-winged summer one. Both generations are polyphagous, but the long-winged generation shows a preference for flax and, to a lesser extent, for barley and wheat. Eggs are laid on the plants, and larvae feed on the growing points and pupate in the soil. The short-winged generation leaves the soil in the early spring and continues to emerge up to the latter part of May. The larvae of the long-winged generation emerge in the early part of May, the time depending on the temperature during the period preceding egg laying. The long-winged adults appear generally at the last of May or early June. The full-grown larvae of the short-winged generation hibernate in the soil at depths of 30 to 50 cm., sometimes to a maximum depth of 80 cm. The overwintering forms sometimes remain in the soil for more than one year.

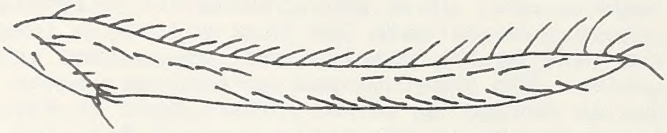
Description: Adults - Entirely brown,except for light yellowish-brown areas as follows: Antennal segment III, basal portions of antennal segments IV and V, tarsi, and most of fore tibia. A rather small, slender thripid; about 1 mm. long; distinguished from other species of Thrips by the parallel-sided head; moderately long postero-angular pronotal setae (0.065-0.075 mm); complete, irregular posterior marginal comb on abdominal tergum VIII; 5 to 20 accessory setae on abdominal sterna III-VII, in addition to the 3 primary pairs of posterior marginals; unarmed fore legs; and in long-winged specimens, 5 or more distal setae on the fore vein of the wing. The wings extend scarcely past the end of the metathorax in short-winged forms and well beyond the middle of the abdomen in long-winged ones. Males have clear oval glandular areas anterior to the accessory setae on abdominal sterna III-VII. LARVAE - Pale yellow and can be distinguished from other thripid larvae by the relatively stout teeth in the posterior marginal comb on abdominal tergum VIII. In other thripids, except Taeniothrips inconsequens (Uzel), the comb has much finer teeth or is wanting. The comb in inconsequens is similar except that 2 pairs of teeth on either side are distinctly larger than the other 2 pairs. In angusticeps, the 4 mesal pairs are about the same size and there are 2 smaller pairs laterally. (Prepared in Survey and Detection Operations in cooperation with other ARS agencies. Description furnished by Kellie O'Neill). CEIR 12(16):4-20-62.

(See illustrations on page 402)

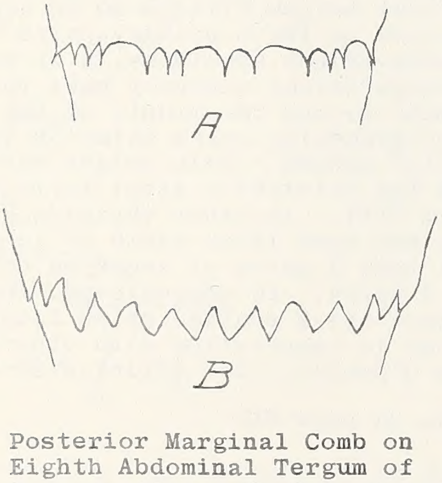
Major references: 1. Franssen, C. J. H. 1955. Tijdschr. over Plantenziekten 61(3):97-102. 2. Franssen, C. J. H., and Mantel, W. P. 1961. Ibid. 67(2):39-51. Figures (except map): Larva from Ahlberg, O. 1926. Svensk Insektfauna. Tripsar. Thysanoptera 6:13. Teeth on comb of eighth abdominal tergite from Ahlberg, O. 1924. Central. f. Fǒrsǒksvasender Jordbruksomradet. Ent. Avdelningen No. 42:22. Forewing and ventral aspect of abdomen of adult by Kellie O'Neill.



Ventral Aspect of Abdomen of T. angusticeps Uzel Adult, Segments II-X (all setae omitted except primary and accessory setae II-VII)

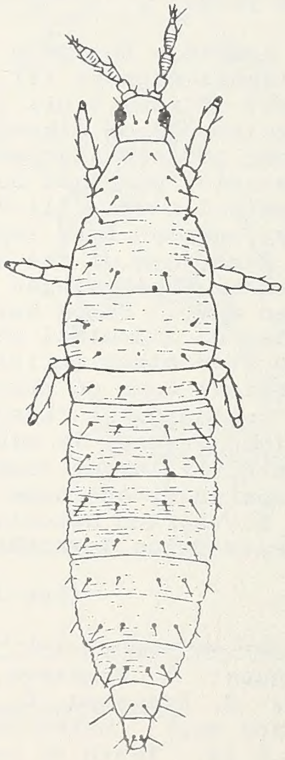


Forewing of T. angusticeps Uzel Adult (all fringe cilia omitted)



Posterior Marginal Comb on Eighth Abdominal Tergum of T. angusticeps Uzel Larvae

A - First stage; B - Second stage



Larva of T. angusticeps Uzel

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